

A1

4. (Amended) Protein according to claim 1, characterized in that the endothelial cells are proliferating endothelial cells.

A2

17. (Amended) Antibody that is able to bind to a protein according to claim 1.

19. (Amended) Antibody according to claim 17 that is able to inhibit effects that are specific to the ED<sub>b</sub>-fibronectin domains.

20. (Amended) Antibody according to claims 17, whereby the binding and inhibition are carried out in vitro and/or in vivo.

21. (Amended) Antibody according to claims 17, wherein it is monoclonal or recombinant.

22. (Amended) Antibody, according to claim 17, wherein it is an scFv fragment.

23. (Amended) Cell that expresses a protein according to claims 1.

24. (Amended) Cell that expresses an antibody according to claim 17.

25. (Amended) Phage that expresses an antibody according to claim 17.

26. (Amended) Process for screening compounds that bind to a receptor of the ED<sub>b</sub>-fibronectin domains, whereby the process comprises:

Comparison of a response of cells in the presence of one or more of these compounds with the control response of said cells in the absence of these compounds, whereby the cells express a protein according to claim 1 or

comprise a nucleic acid that codes for this protein, and whereby the response or the control response is mediated by a receptor of the ED<sub>b</sub>-fibronectin domains.

A3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

*A4*

28. (Amended) Process according to claim 26, wherein a binding region of the ED<sub>b</sub>-fibronectin domains comprises sequences SEQ ID NOS: 1-4 or portions thereof.

*A5*

31. (Amended) Process according to claim 26, whereby the compounds are selected from the group that comprises antibodies, artificial antibodies, antibody fragments, peptides, low-molecular compounds, aptamers and Spiegelmers.

*A6*

34. (Amended) Process for screening compounds that bind to the ED<sub>b</sub>-fibronectin domains, whereby the process comprises:

- a) Bringing cells into contact with a fixed concentration of a protein that comprises the ED<sub>b</sub>-fibronectin domains or a protein with one of the sequences that are represented in SEQ ID NOS: 1-4, in the presence of different concentrations of one or more of the compounds; and
- b) Determination of differences in the response of cells to the protein that comprises the ED<sub>b</sub>-fibronectin domains or a protein with one of the sequences that are represented in SEQ ID NOS: 1-4, in the presence of the compounds in comparison to the control response of cells to the protein that comprises the ED<sub>b</sub>-fibronectin domains or a protein with one of the sequences that are represented in SEQ ID NOS: 1-4, in the absence of these compounds, whereby
  - the cells express a protein according to claim 1 or
  - comprise a nucleic acid that codes for this protein,
  - and whereby the response or the control response is mediated by a receptor of the ED<sub>b</sub>-fibronectin domains.

*A7*

38. (Amended) Process according to claim 34, whereby the compounds are selected from the group that comprises antibodies, artificial antibodies, antibody fragments, peptides, low-molecular substances, aptamers and Spiegelmers.

*A8*

40. (Amended) Use of a protein according to claim 1 for screening compounds that bind to a receptor of the ED<sub>b</sub>-fibronectin domains or the ED<sub>b</sub>-fibronectin domains.

*A8*  
41. (Amended) Use of a cell according to claim 23 for screening compounds that bind to a receptor of the ED<sub>b</sub>-fibronectin domains or the ED<sub>b</sub>-fibronectin domains.

*A9*  
*B*  
43. (Amended) Use of a protein according to claim 1 to develop antibodies or scFv-fusion proteins for diagnostic or therapeutic purposes.

*B*  
44. (Amended) Use of a cell according to claim 23 to develop antibodies or scFv-fusion proteins for diagnostic or therapeutic purposes.